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10/700,233	11/03/2003	James Michael Quackenbush	019377-00100	3765

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John Wilson Jones
Attn: IP Docketing Clerk
Locke, Liddell & Sapp LLP
600 Travis, Suite 3400
Houston, TX 77002

EXAMINER

RONESI, VICKEY M

ART UNIT	PAPER NUMBER
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1714

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06/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/700,233

Applicant(s)

QUACKENBUSH, JAMES
MICHAEL

Examiner

Vickey Ronesi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 15-32, 34, 36 and 37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 15-32, 34, 36 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. All outstanding objections and rejections, except for those maintained below, are withdrawn in light of applicant's amendment filed on 4/2/2007.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
3. The new grounds of rejection set forth below are necessitated by applicant's amendment filed on 4/2/2007. In particular, the independent claims have been amended to recite that the composition contain at least one heat activated catalyst. Thus, the following action is properly made final.

Claim Objections

4. Claims 4-8 are objected to for the reasons given in paragraph 4 of Office action mailed 11/2/2006. The examiner's position remains that there is not *full* antecedent basis for the term "the alicyclic carboxylic acid anhydride" and "the aromatic carboxylic acid anhydride". While it is clear to what these refer (hence, no 35 USC 112, 2nd paragraph rejection for being indefinite), these claims do not have full antecedent basis as recited in independent claim 1.

Claim Rejections - 35 USC § 103

5. Claims 1, 4-11, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al (JP 05-238799, machine translation) in view of Wooster et al (US 3,341,555) and Inoue (US 5,422,391).

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Sasaki et al discloses an epoxy resin composition for artificial marble comprising an epoxy resin, a carboxylic anhydride (paragraph 0007), and an inorganic filler (paragraph 0009), wherein the composition is heated to cure and hardened the composition (paragraph 0010).

Sasaki et al fails to disclose (a) two or more carboxylic acid anhydride with at least one being an aromatic acid anhydride and at last one being an alicyclic acid anhydride and a heat-activated catalyst and (b) a mixture of inorganic fillers with specific particle diameters.

With respect to (a), Sasaki et al discloses of use of both aromatic and alicyclic carboxylic acid anhydrides.

Wooster et al discloses a mixture of carboxylic acid anhydrides for use as a curing agent in epoxy resins comprising hexahydrophthalic anhydride, tetrahydrophthalic anhydride, and phthalic anhydride (col. 7, lines 1-14), wherein this mixture provides for a stable homogeneous liquid composition at ambient temperatures (col. 2, lines 21-50) which is just as effective as other anhydrides (col. 3, lines 3-13). The addition of other cyclic anhydrides such as methyltetrahydrophthalic acid are also taught (col. 4, line 50). Wooster et al further teaches suitable amines as cure activator (col. 4, line 60 to col. 5, line 6), which include polyamines and imidazoles, and are activated upon heating. Note col. 5, lines 48-50 where a mixture of hexahydrophthalic anhydride, tetrahydrophthalic anhydride, and phthalic anhydride flakes is exemplified.

Given that Sasaki et al teaches the use of carboxylic acid anhydrides in an epoxy composition and further given the teachings by Wooster et al regarding the benefits had by using a mixture of aromatic and alicyclic acid anhydrides as hardeners, it would have been obvious to

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one of ordinary skill in the art to utilize a mixture of acid anhydrides as the hardener of Sasaki to obtain a more stable homogeneous liquid composition at ambient temperatures.

With respect (b), Sasaki et al teaches the use of fillers such as glass powder.

Inoue discloses a high density artificial stone composition and teaches that using a mixture of fine (10-70 mesh, > 210 microns) and very fine particles (well above 100 mesh, < 149 microns) is advantageously used in order to form a skeletal structure that binds all the components to an entirety, giving resiliency or tensile strength to the end product where the artificial stone is finally produced (col. 4, lines 8-12). The fine particle include natural stone chips (col. 3, lines 46-51).

Given that Sasaki et al teaches a composition for use in artificial marble which contains inorganic fillers and further given that Inoue teaches that improved properties are had by using two sizes of inorganic fillers like presently claimed in an artificial stone composition, it would have been obvious to one of ordinary skill in the art to utilize two fillers with the presently claimed particle diameters.

6. Claims 2, 3, 12, 15-31, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al (JP 05-238799, machine translation) in view of Wooster et al (US 3,341,555) and Inoue (US 5,422,391) and further in view of Traverso et al (US 5,280,051).

The discussion with respect to Sasaki et al, Wooster et al, and Inoue in paragraph 5 above is incorporated here by reference.

While Sasaki et al and Inoue discloses useful fillers in the artificial stone composition, they fail to disclose the use of granite chips or sand. Note that Inoue discloses the use of

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Traverso et al discloses artificial marble and granite compositions and teaches that useful fillers include granite and silica sand (col. 2, lines 41-47).

Given that Traverso et al discloses the use of known fillers in artificial marble and granite compositions, it would have been obvious to one of ordinary skill in the art to utilize sand and granite chips as the inorganic fillers in the artificial marble composition of Sasaki et al. Case law holds that the selection of a known material based on its suitability for its intended use supports *prima facie* obviousness. *Sinclair & Carroll Co vs. Interchemical Corp.*, 325 US 327, 65 USPQ 297 (1045).

7. Claims 32 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al (JP 05-238799, machine translation) in view of Wooster et al (US 3,341,555) and Inoue (US 5,422,391) and further in view of Platka et al (US 4,244,993).

The discussion with respect to Sasaki et al, Wooster et al, and Inoue in paragraph 5 above is incorporated here by reference.

Sasaki et al does not disclose the use of its artificial marble composition in a countertop.

Platka et al teaches that synthetic marble products are well recognized in the art and include countertops (col. 1, lines 25).

Given that Sasaki et al teaches an artificial marble composition and further given that Platka et al teaches that synthetic marble products include countertops, it would have been obvious to one of ordinary skill in the art to utilize the marble composition of Sasaki et al in a countertop as taught by Platka et al.

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8. Claims 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al (JP 05-238799, machine translation) in view of Wooster et al (US 3,341,555) and Inoue (US 5,422,391) and further in view of Traverso et al (US 5,280,051) and Platka et al (US 4,244,993).

The discussion with respect to Sasaki et al, Wooster et al, Inoue, and Traverso et al in paragraph 6 above is incorporated here by reference.

Sasaki et al does not disclose the use of its artificial marble composition in a countertop.

Platka et al teaches that synthetic marble products are well recognized in the art and include countertops (col. 1, lines 25).

Given that Sasaki et al teaches an artificial marble composition and further given that Platka et al teaches that synthetic marble products include countertops, it would have been obvious to one of ordinary skill in the art to utilize the marble composition of Sasaki et al in a countertop as taught by Platka et al.

Response to Arguments

9. Applicant's arguments filed on 4/2/2007 have been fully considered but they are not persuasive. Specifically, applicant argues that Wooster obviates the needs for high-temperature curing epoxy mixtures and hence a heat-activated catalyst.

In response, Wooster provides teachings that mixtures of aromatic and alicyclic carboxylic acid anhydrides are stable homogeneous liquid composition at ambient temperatures. This does not preclude the curing at elevated temperatures because these teachings are only to storage stability and not to curing the resin. In fact, Wooster teaches heating to curing temperatures (col. 3, lines 3-13). Wooster et al further teaches suitable amines as cure activator

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(col. 4, line 60 to col. 5, line 6), which include polyamines and imidazoles (like presently claimed), and are activated upon heating.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

6/19/2007
Vickey Ronesi



/Vasu Jagannathan/
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